

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In The Matter of a Contested Case Regarding	)	DLNR File No. HA-04-02
an Enforcement Action Involving the Alleged	)	
Damages to State land(s) and Natural	)	BOARD OF LAND AND NATURAL
Resources due to Excessive Sedimentation at	)	RESOURCES' FINDINGS OF FACT,
Pila'a, District of Hanalei, Island of Kaua'i	)	CONCLUSIONS OF LAW, AND
	)	DECISION AND ORDER; CERTIFICATE
	)	OF SERVICE
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BOARD OF LAND AND NATURAL RESOURCES' FINDINGS OF FACT,  
CONCLUSIONS OF LAW, AND DECISION AND ORDER

The Board of Land and Natural Resources ("BLNR"), having reviewed the files in the case, considered the testimony and evidence presented during the hearing herein (DLNR File No. HA-04-02), the Hearing Officer's Proposed Findings of Fact, Conclusions of Law, and Recommendation, the exceptions filed by the parties and the arguments of counsel, makes the following Findings of Fact, Conclusions of Law, and Decision and Order:

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## I. INTRODUCTION

### A. PROCEEDING

1. This contested case involves an enforcement action against Pila‘a 400, LLC (“Pila‘a 400”) for damages to State of Hawaii conservation lands (including submerged lands) caused by sediment runoff from property owned by Pila'a 400, LLC, from a November 26, 2001 rain storm and thereafter. (Pila'a 400 proposed FOF)

### B. PARTIES

1. Pila‘a 400 is a Hawai‘i limited liability corporation. (Pila'a 400 et al.'s motion filed March 12, 2004).

2. Pila‘a 400 is the owner of real property identified as T.M.K. No. 4:5-1-4-8 (the “Property”). (Pila'a 400 et al.'s motion filed March 12, 2004.) The Property is located on the Island of Kauai, east of Kilauea town in the District of Hanalei, Kauai. (Exhibit 1, Page 2<sup>1</sup>). The Property has an area of approximately 383 acres. The area is commonly referred to as Pila‘a or Pila‘a Bay. (Exhibit 1, Page 2).

3. Pila‘a 400 purchased the Property from Pflueger Properties on January 23, 2001. (Exhibit TT, Page 2) (Pila'a 400 et al.'s motion filed March 12, 2004, Page 3).

4. James Pflueger is a manager of Pila‘a 400. (Pila'a 400 et al.'s motion filed March 12, 2004).

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<sup>1</sup> DLNR’s Exhibits are numbered and Pila‘a 400’s exhibits are lettered.

5. The Department of Land and Natural Resources ("DLNR") is an administrative agency empowered to enforce the law relating to conservation districts, including collection of fines and damages.

## II. PROCEDURAL HISTORY

1. On January 28, 2002, DLNR issued a Notice and Order that notified Pflueger Properties and James Pflueger, Trustee, of illegal work that “has been conducted within the Conservation District at Pila‘a, Kilauea, Kauai, Hawaii”. The Order stated that "you are in violation of Hawaii Administrative Rules (HAR) Title 13, Chapter 5, entitled 'Conservation District' providing for land use within the Conservation District enacted pursuant to [Hawaii#i Revised Statutes] chapter 183C." Specifically, the DLNR stated that “grading, grubbing, cutting, and culvert construction” were conducted on the Property. (Exhibit OO).

2. On June 20, 2002, the DLNR sent to Pflueger Properties and James Pflueger, Trustee, a second Notice and Order stating that the landowner is ordered “to submit a remedial Best Management Practices Plan for the affected conservation areas”. (Exhibit PP).

3. In response to the DLNR Notice and Order of January 28, 2002, Pila‘a 400 submitted Plans for Emergency Work prepared by the engineering firm Belt Collins Hawaii Ltd. The Plans for Emergency Work were approved by the DLNR and Pila‘a 400 implemented the remedial measures to reduce further sedimentation of

waters within Pila‘a Bay. (Exhibit A; Exhibit B, Exhibit C; Wallrabenstein WDT, at 6-15<sup>2</sup>).

4. By letter sent to Pflueger Properties and James Pflueger, Trustee, dated August 22, 2002, the DLNR acknowledged receipt and approval of the Plan of Emergency Work and implementation of the work. (Exhibit QQ).

5. Approval of revised Plans of Emergency Measures at the Pila‘a property was provided to Pflueger Properties, and James Pflueger, Trustee, by the DLNR on November 20, 2002. (Exhibit RR).<sup>12</sup> The DLNR submitted its report entitled “Staff Submittal to the Board of Land and Natural Resources (“BLNR”) Regarding Unauthorized Grading, Grubbing, Filling, Road Construction, Landscaping, Drainage Improvements, and Damages to State Land and Natural Resources due to Excessive Sedimentation at Pila‘a, District of Hanalei, Island of Kauai,” dated August 22, 2003. (Exhibit 1).

6. On August 22, 2003, at a public meeting held before the BLNR at the Kauai War Memorial Convention Hall in Lihue, Hawaii, an oral request for a contested case hearing regarding BLNR's finding of coral reef damage and recommended damages of \$5,842,000 was made on behalf of Pila‘a 400, James Pflueger, and Pflueger Properties. A written request for a contested case hearing was submitted to the BLNR on August 29, 2003. (Exhibit TT).

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<sup>2</sup> Written testimony of the various witnesses will be referred to by the last name of the witness and “WDT” for written direct testimony and “WRT” for written rebuttal testimony, followed by the page number of the testimony.

7. By letter dated September 2, 2003, the BLNR found James Pflueger, in violation of Hawaii Revised Statutes chapter 183C for unauthorized land uses at Pila'a, Kauai and ordered fines, administrative costs, and implementation of a remediation plan for conservation district land areas. (Exhibit SS).

8. The BLNR authorized the appointment of a Hearing Officer to conduct a contested case hearing relevant to the BLNR's finding of coral reef damages and recommended damages. The BLNR's chairperson, pursuant to authority delegated by the BLNR, selected Michael W. Gibson as hearing officer.

9. The hearing officer received applications to participate in the contested case hearings from the Limu Coalition and the Kilauea Neighborhood Association. However, these applications were voluntarily withdrawn. (Minute Order No. 6, filed March 8, 2003).

### III. MOTIONS

A. *Pila'a 400, et al.'s Motion for Judicial Notice of Pila'a 400, LLC as Landowner and to Dismiss Pflueger Properties and James H. Pflueger:*

1. On March 12, 2004, Pila'a 400, et al. filed their Motion for Judicial Notice of Pila'a 400 LLC as Landowner and to Dismiss Pflueger Properties and James H. Pflueger. The Motion was based on the DLNR's Statement of the Case which stated that the only issue in the contested case was to determine damages resulting from the "sediment input dating from November 2001 and thereafter". Given the DLNR's failure to present any evidence that Pflueger Properties was the landowner on or after the sediment discharge of November 26, 2001 or that Mr. Pflueger was acting in any

capacity other than in his representative capacity as the manager of Pila'a 400, LLC, Pila'a 400 moved to dismiss Pflueger Properties and James Pflueger.

2. On April 8, 2004, the DLNR filed its Response to Pila'a 400, et al.'s Motion for Judicial Notice of Pila'a 400 LLC as Landowner and to Dismiss Pflueger Properties and James H. Pflueger stating that it did not object to the Hearing Officer taking official notice that Pila'a 400 is the landowner for purposes of this enforcement action and conceding that Pflueger Properties and James H. Pflueger were not the owners of the Property and should be dismissed.

3. Pila'a 400, et al. filed their Reply to DLNR's Response to Pila'a 400, et al.'s Motion for Judicial Notice of Pila'a 400 LLC as Landowner and to Dismiss Pflueger Properties and James H. Pflueger on April 15, 2004.

4. On April 29, 2004, the Hearing Officer filed Minute Order No. 7 granting Pila'a 400, et al.'s Motion that Pila'a 400 is the landowner of the Pila'a Property at all relevant times and that Pflueger Properties and James H. Pflueger are dismissed from the contested case proceeding without prejudice.

*B. Pila'a 400's Motion To Exclude Florida Statute §253:04 As a Measure of Damages to Hawaii State Land:*

1. On March 12, 2004, Pila'a 400, et al. submitted their Motion to Exclude Florida Statute §253:04 As a Measure of Damages to Hawaii State Land based on the argument that the DLNR was not authorized to impose a Florida civil penalty statute as a measure of damages to Hawaii state land.

2. On April 8, 2004, the DLNR filed its Response to Pila'a 400's Motion to Exclude Florida Statute §253:04 As a Measure of Damages to Hawaii State

Land acknowledging that the Florida civil penalty law cannot be applied in this case but that its methodology may be relevant to the determination of damages.

3. Pila‘a 400, et al. filed their Reply to the DLNR’s Response to Pila‘a 400’s Motion to Exclude Florida Statute §253:04 As a Measure of Damages to Hawaii State Land on April 15, 2004.

4. On April 29, 2004, the Hearing Officer filed Minute Order No. 8 stating that Florida Statute §253:04 shall not be applied in this contested case. However, Minute Order No. 8 stated that the DLNR is not prohibited from presenting evidence concerning the methodology used by the Florida statute if the evidence is relevant.

*C. Pila‘a 400’s, et al.’s Motion to Exclude Land or Habitat Restoration:*

1. On March 12, 2004, Pila‘a 400, et al. filed their Motion to Exclude Land or Habitat Restoration based on the argument that Hawaii Revised Statute (“HRS”) §183C-7 (1994) is the applicable statute for this contested case and HRS §183C-7 (1994) does not provide or authorize the imposition of land or habitat restoration costs.

2. On April 8, 2004, the DLNR filed its Memorandum in Opposition to Pila‘a 400, et al.’s Motion to Exclude Land or Habitat Restoration responding that any damages assessment may include costs associated with land or habitat restoration.



3. Pila'a 400, et al. filed their Reply to the DLNR's Memorandum in Opposition to Pila'a 400, et al.'s Motion to Exclude Land or Habitat Restoration on April 15, 2004.

4. On May 11, 2004, the Hearing Officer filed Minute Order No. 9 denying the Motion to Exclude Land or Habitat Restoration.

*D. Pila'a 400's Motion to Implead Third Parties:*

1. On May 21, 2004, Pila'a 400 filed its Motion to Implead Third Parties, seeking to implead Richard Marvin, III and Nicholas Marvin as additional responding parties in the pending contested case and to present evidence of their contributory actions.

2. On June 4, 2004, DLNR filed its Memorandum in Opposition to Pila'a 400's Motion to Implead Third Parties arguing that the Motion was untimely and not authorized by the contested case rules.

3. On June 9, 2004, Pila'a 400 filed its Reply Memorandum in Further Support of its Motion to Implead Third Parties.

4. On June 8, 2004, the Hearing Officer filed Minute Order No. 10 which denied Pila'a 400's Motion to Implead Third Parties.

*E. Pila'a 400's Motion to Strike DLNR's Expert Witnesses' Rebuttal Testimony:*

1. On July 13, 2004, Pila'a 400 filed its Motion to Strike DLNR's Expert Witnesses Rebuttal Testimony as to all expert rebuttal opinions submitted by

witnesses not previously listed and as to all rebuttal opinions which should have been disclosed in the written direct testimony.

2. On July 14, 2004, DLNR filed its Memorandum in Opposition to Pila'a 400's Motion to Strike DLNR's Expert Witnesses arguing that the expert opinions are rebuttal.

3. On July 16, 2004, Pila'a 400 filed its Reply Memorandum.

4. On July 26, 2004, the Hearing Officer issued Minute Order No. 14 which granted Pila'a 400's motion as to Don Heacock but denied Pila'a 400's motion as to the remaining witnesses without prejudice.

*F. Pila'a 400's Motion to Strike DLNR's Exhibit 41 and 42:*

1. On July 13, 2004, Pila'a 400 filed its Motion to Strike DLNR's Exhibits 41 and 42 on the basis of inadmissibility and prejudice.

2. On July 14, 2004, DLNR filed its Memorandum in Opposition to Pila'a 400's Motion to Strike DLNR's Exhibits 41 and 42 arguing that the exhibits were relevant to the proceeding.

3. On July 16, 2004, Pila'a 400 filed its Reply Memorandum.

4. On July 26, 2004, the Hearing Officer issued Minute Order No. 12 which denied Pila'a 400's motion without prejudice.

*G. Pila'a 400's Motion to Strike DLNR's Additional Witnesses and Additional Exhibits:*

1. On July 13, 2004, Pila'a 400 filed its Motion to Strike DLNR's Additional Witnesses and Additional Exhibits as the addition of these witnesses was untimely and their testimonies were inadmissible.

2. On July 14, 2004, the DLNR filed its Memorandum in Opposition to Pila'a 400's Motion to Strike Additional Witnesses and Additional Testimonies arguing that the unlisted witnesses were providing rebuttal testimony.

3. On July 16, Pila'a 400 filed its Reply Memorandum.

4. On July 26, 2004, the Hearing Officer issued Minute Order No. 11 which denied Pila'a 400's motion without prejudice.

*H. Pila'a 400's Motion to Exclude and/or Limit Testimony and Evidence of Sam Lemmo and Robert Richmond:*

1. On July 13, 2004, Pila'a 400 filed its Motion to Exclude and/or Limit Testimony and Evidence of Sam Lemmo and Robert Richmond on the issue of environmental economics, specifically coral reef valuation, as neither is qualified to render an opinion on coral reef valuation.

2. On July 14, 2004, DLNR filed its Memorandum in Opposition to Pila'a 400's Motion to Exclude and/or Limit Testimony and Evidence of Sam Lemmo and Robert Richmond arguing that Dr. Richmond is qualified as an expert in coral valuation and that Mr. Lemmo's testimony was based on information in the record.

3. On July 16, 2004, Pila'a 400 filed its Reply Memorandum.

4. On July 26, 2004, the Hearing Officer issued Minute Order No. 13 which denied Pila'a 400's motion without prejudice.

*I. DLNR's Motion to Strike Pila'a 400's Exhibits:*

1. On July 14, 2004, DLNR filed its Motion to Strike Pila'a 400's Exhibits "OO" to "UU" on the basis the exhibits were untimely.

2. On July 16, 2004, Pila'a 400 filed its Memorandum in Opposition to DLNR's Motion to Strike Pila'a 400's Exhibits arguing that the exhibit submission was timely under Minute Order No. 5.

3. On July 26, 2004, the Hearing Officer issued Minute Order No. 15 which denied DLNR's Motion without prejudice.

*J. Pila'a 400's Motion to Strike New Opinions of Paul Jokiel and Robert Richmond:*

1. On August 5, 2004, Pila'a 400 filed its Motion to Strike New Opinions of Paul Jokiel and Robert Richmond arguing that new opinions were presented during the contested case which were not previously disclosed in written direct testimony, written rebuttal testimony, or by report.

2. The DLNR did not file a response to Pila'a 400's Motion to Strike New Opinions.

3. On August 9, 2004, the Hearing Officer issued Minute Order No. 16 denying Pila'a 400's motion without prejudice.

4. On July 19, 2004, the contested case hearing commenced with a site visit by the Hearing Officer, together with representatives of the parties. During the visit the Hearing Officer inspected Pila'a beach, bay, and reef and snorkeled various spots in the bay, both east and west of the channel. It was not possible to make a record

of the site visit. (See Stipulation Regarding Site Inspection Protocol filed July 2, 2004, and transcript (7/20/04), pages 5-6<sup>3</sup>).

5. Pursuant to the Hearing Officer's direction, written testimony and exhibits were submitted prior to start of the contested case hearing. Testimony was taken on thirteen days: July 20-23, July 26-30, and August 3, 6, 11, and 13, 2004. During testimony, the Hearing Officer made decisions to admit and deny written testimony and exhibits.

#### IV. EXPERT WITNESSES

1. Dr. Paul Jokiel is a full professor employed by the Hawaii Coral Reef Assessment and Monitoring Program, University of Hawaii, Institute for Marine Biology. He is an international authority on coral reefs and coral reef monitoring. He has published over 100 articles and manuscripts and has received numerous awards and honors related to corals. Dr. Jokiel was qualified to testify in this case as an expert witness in the field of coral reefs. (Written and oral testimony of Jokiel; Exhibit 14).

2. Dr. Charles Fletcher is an internationally recognized expert on the subject of coastal sedimentary geology and carbonate reefs. He is the author of 70 publications, books or reports, recipient of many grants, honors and awards in the field of coastal geology and carbonate reefs. Dr. Fletcher has served as an expert witness on numerous administrative and judicial cases involving matters of coastal geology. Dr.

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<sup>3</sup> References to the transcript identify the date of the transcript and the page number. In most cases, the witness is also identified.

Fletcher was qualified to testify in this case as an expert witness in the field of coastal geology. (Written and oral testimony of Fletcher; Exhibit 3).

3. David Gulko is a senior aquatic biologist with the Division of Aquatic Resources, Department of Land and Natural Resources. He has published numerous articles on coral reef ecology and management and has previously testified in enforcement cases. Mr. Gulko was qualified to testify in this case as an expert witness in the field of coral reef ecology. (Written and oral testimony of Gulko; Exhibit 5).

4. Dr. William Walsh is an aquatic biologist and resource manager with the Division of Aquatic Resources, Department of Land and Natural Resources. He has published numerous articles and is a former assistant professor teaching vertebrate zoology and introductory biology at the University of Hawaii. Dr. Walsh was qualified to testify in this case as an expert witness in the field of aquatic biology. (Written and oral testimony of Walsh; Exhibit 7).

5. Ryan Okano is a graduate student in the University of Hawaii botany department specializing in phycology, which is the study of algae or seaweed. Mr. Okano was qualified to testify in this case as an expert witness in the field of algae. (Written and oral testimony of Okano).

6. Dr. Robert Richmond is a research professor at the Kewalo Marine Laboratory, University of Hawaii. He is the author of over 100 papers and articles relating to coral reefs and valuation of coral reefs. He served as scientific advisor to the United States Coral Reef Task Force, served on a number of advisory boards, and advised governments in the South Pacific as to coral reefs and coral reef

valuation. Dr. Richmond was qualified to testify in this case as an expert witness in the field of coral reef biology, including valuation of coral reefs. (Written and oral testimony of Richmond; Exhibit 10).

7. Richard Grigg is a professor at the University of Hawaii and has been with the University since 1970. Dr. Grigg has a Master of Science degree in marine zoology and a Ph.D. in oceanography. He is an international authority on coral reef ecosystems with over one hundred and fifty published books, journal articles, technical reports, and abstracts. Dr. Grigg was qualified to testify in this case as an expert witness in the fields of coral reef ecology and oceanography. (Written and oral testimony of Grigg).

8. Steven Dollar has a Master of Science and a Ph.D. in the field of biological oceanography. He is a coastal resources specialist at the University of Hawaii School of Ocean Earth Science and Technology and is the principal and sole proprietor of Marine Research Consultants. Dr. Dollar has an extensive publication list including peer reviewed publications, books, and articles. Dr. Dollar was qualified to testify in this case as an expert in the fields of coral reef ecology and coastal oceanography. (Written and oral testimony of Dollar).

9. Eric DeCarlo is a professor of geochemistry in the Department of Oceanography at the University of Hawaii since 1991. He has a Bachelor's degree in oceanography and a Master's and Ph.D. in chemistry. Dr. DeCarlo has authored over 64 reference publications in addition to numerous other publications in the field of sedimentary geochemistry. Dr. DeCarlo has participated in multiple oceanographic

expeditions around the world. Dr. DeCarlo was qualified to testify in this case as an expert in the field of sedimentary geochemistry. (Written and oral testimony of DeCarlo).

10. John Dixon is internationally renowned as a pioneer in the field of environmental economy. He has a Masters and Ph.D. in economics from Harvard University. Dr. Dixon's work experience includes the position of lead environmental economist at the World Bank Institute. Dr. Dixon's publication list, including books, monographs, seminar reports, book reviews, and articles is extensive. Dr. Dixon was qualified to testify in this case as an expert in the field of environmental economist. (Written and oral testimony of Dixon).

11. Paul Wallrabenstein worked as a civil engineer with the firm of Belt Collins of Hawaii Ltd. for over thirty-nine years. Mr. Wallrabenstein's professional memberships include the American Society of Civil Engineers and the National Society of Professional Engineers. Mr. Wallrabenstein specialized in site development for major national and international projects which included planning and design for roadways, utilities, and support systems. As part of these projects, Mr. Wallrabenstein created and implemented erosion control facilities for water runoff and erosion control. (Written and oral testimony of Wallrabenstein). Mr. Wallrabenstein was qualified to testify in this case as an expert in the field of civil engineering. The Hearing Officer determined that Mr. Wallrabenstein's oral testimony concerning the amount of sediment discharge at Pila'a following the November 2001 rainstorm was not credible or persuasive.



## V. DISCUSSION

### A. THE PROPERTY

1. The Property is rural in nature consisting mostly of fallow agricultural lands. A thin strip of Conservation District land (ranging from 175 feet to 250 feet in width) runs laterally along the *makai* (seaward) edge of the Property. (Exhibit 1).

2. The Pila‘a Property is characterized by a level to gently sloping plateau extending from Kuhio Highway and Koolau Road toward the ocean. The plateau is broken by four gulches which extend to the shoreline. The plateau above and between the gulches naturally drains water and sediment along natural contours that form distinct geographic drainage areas. (Exhibit K at 11; Exhibit VVV).

3. From the late 1800's up until the 1970's, Kilauea Plantation leased the Pila‘a Property to grow and harvest sugar cane. The land was regularly cleared, grubbed, excavated, graded and tilled for more than 80 years. In the early 1900's the Lucas family bought the land which subsequently became part of the Mary N. Lucas Trust. From 1992 to 1997, the Lucas Trust converted the old sugar cane fields into cattle and grazing operations. On April 10, 1997, Pflueger Properties, a limited partnership, bought the Pila‘a Property from the Lucas Trust. On January 23, 2001, Pila‘a 400 purchased the Property from Pflueger Properties. (Exhibit K at 12).

4. Pila‘a Beach and Pila‘a Bay lie *makai* of the property. Except for the *kuleana* mentioned below, the beach and bay are owned by the State of Hawai'i and lie in the conservation district. (WDT of Sam Lemmo, Page 1).

5. Land (including submerged land) *makai* of the shoreline boundary is in the resource subzone. Conservation district land *mauka* of the shoreline boundary is in the limited subzone. (Exhibit 1, page 1).

6. There are several privately owned *kuleana* in the area. The *kuleana* are located between the Property and the state owned beach and water. (WDT of Rick Marvin).

7. Pila'a Beach is a white sand beach approximately 50 to 100 feet in width and running most of the length of Pila'a Bay. The beach is bisected by the Pila'a stream. (Exhibit 1, page 17).

8. A well-developed fringing reef exists in Pila'a Bay. The reef extends from a point to the east of Ke'ilu Point on the west (left as one faces the ocean) to Kepuhi Point on the east (right when facing the ocean). (Exhibit 1, page 2.) The reef is bisected by a deep channel which represents the seaward extension of the Pila'a stream. (Exhibit 2, page 14).

9. Waves washing over the reef into the inner reef flush the area and create an environment favorable to marine life. (Exhibit 2, page 17).

10. Most of the water washing over the reef exits through the channel that bisects the reef in Pila'a Bay. Thus the general pattern of currents is from east (right while facing the ocean) to west (left) in the eastern half of the reef and from west (left) to east (right) in the western half of the reef. (Exhibit 2, page 47, which contains a picture that the Hearing Officer determined accurately depicts the reef and shows the general pattern of water flow).

11. In general, the Pila‘a system was a strikingly beautiful and productive area with extensive sandy beaches. (Exhibit 2, pages 14-18). The shallow reef area is an excellent site for swimming and snorkeling, except in times of heavy surf. The area was an important juvenile fish habitat, was abundant in octopus, lobster, and *limu* (edible seaweed), and was a productive fishing area. (Exhibit 2, page 21).

12. Prior to November 26, 2001, Pila‘a reef was one of the few remaining high value coral reef flats in the state that had largely escaped encroachment from development and stress from improper land practices. (Exhibit 2, page 21).

13. Between 11 and 16 different coral species exist at Pila‘a. (Exhibit 2, page 23).

14. The Pila‘a reef is an extremely valuable resource. It is one of the few areas on the northeast coast of Kauai with an extensive shallow reef flat that is protected from ocean swell by the outer reef crest. A complex topographic relief in this sheltered area results in a wide range of reef habitats. Marine life is abundant and diverse with diverse coral cover in the deeper locations. Sandy beaches and the extensive wave-protected shallows are an ideal location for ocean recreation. (Exhibit 2, Pages 21-22). Coral cover reached almost 14 percent. (Exhibit 1, Page 34).

#### B. UNAUTHORIZED SITE WORK AND MUDSLIDES

1. Sometime prior to November 26, 2001, Pila‘a 400 or its predecessor, managers, or agents, conducted massive and unauthorized grading, filling, and other site work on the Property. The work included extensive grubbing and grading on a sloping hillside above Pila‘a beach, bay, and reef. The Hearing Officer determined

that grading on the hillside is accurately depicted on video (Exhibit 12) and in photographs. (Exhibit 1, page 7; Exhibit 25).

2. The work also included a massive vertical cut ranging in elevation from 40 to 60 feet in height within the conservation district. The Hearing Officer determined that the vertical cut is accurately depicted on video (Exhibit 12 and Exhibit 21) and in photographs. (Exhibit 1, pages 7 and 8).

3. Pila'a 400 or its predecessor, managers, or agents, also constructed a road in the conservation district. (Exhibits 12 and 21; Exhibit 1, pages 5-9, WDT of Sam Lemmo, page 1).

4. Pila'a 400 or its predecessors, managers or agents also constructed an unauthorized 30 inch pipe or culvert to drain water from the Property. The culvert ran under the road and onto state property in the conservation district. (Exhibit 1, pages 5-9). The culvert discharged directly onto Pila'a Beach. The terminus of the culvert was some 20-40 feet from the water's edge. (Exhibit 1, page 5). After November 26, 2001, between the terminus and the water there was a layer of mud approximately 8-10 inches in thickness. (Exhibit 1, page 5). The Hearing Officer determined that the culvert and the mud flowing out of it onto the beach are accurately depicted on video (Exhibits 12 and 21) and in photographs, (Exhibit 1, page 8 and Exhibits 36 and 38).

5. The culvert was removed sometime after June 2002.

6. On November 26, 2001, there was a rainfall in the area. While heavy, the rainfall event was not unprecedented or even particularly unusual. (Exhibit 2, page 42).

7. On November 26, 2001, and as a result of the work described above, rain and erosion caused a portion of the recently graded and filled hillside on the Property to slump downhill from the Property, across Pila'a Beach and into Pila'a Bay. (Exhibit 1, page 10). Additional sedimentation events occurred in December 2001 and early 2002, in each case resulting in mudflow from the Property into the conservation district. (Exhibit 1, page 5).

8. The erosion resulted in large gullies on the Property. The Hearing Officer determined that a contemporary videotape accurately depicts the gullies. The size of the gullies shows that a substantial amount of sediment moved from the Property into the conservation district. (Exhibit 12; Exhibit 1, page 11; and Exhibit 25 are photographs that accurately depict the gullies).

9. Pila'a 400 subsequently filled the gullies but purports to have no knowledge or record of how much material it took to fill the gullies or how long it took to do so. (Testimony of Wallrabenstein, transcript (8/3/04), page 85; testimony of Rosa, transcript (7/30/04), pages 73-74).

10. Richard Marvin owns one of the *kuleana* at Pila'a Bay. (WDT of R. Marvin).

11. On November 26, 2001, Mr. Marvin's *kuleana* was covered by several feet of the mud that flowed from Pila'a 400's Property. (Exhibit 12).

12. Mudflows from Pila'a 400's Property into the conservation district occurred because Pila'a 400 or its predecessor, managers, or agents failed to obtain permits for the work and failed to implement adequate sediment and water pollution controls. (Exhibit 1, page 5).

13. None of the grading on the Property resulting in the mudflows was authorized by county grading permits as required. (Written testimony of Sam Lemmo, page 1).

14. Pila'a 400 did not have any permit from the DLNR or the BLNR authorizing or allowing it to discharge mud onto, build on, grade, fill, or in any way use, alter, or affect land (including submerged land) in the conservation district. (Written testimony of Sam Lemmo, page 1).

15. No discharges into the ocean were authorized by state or federal law. (WDT of Sam Lemmo, page 1).

16. Pursuant to the DLNR's Notice and Order, at a cost of approximately \$1,000,000.00, Pila'a 400 implemented extensive emergency measures which effectively halted sediment runoff into Pila'a Bay. (Wallrabenstein WDT at 15-16; Exhibit B; Jokiel Tr. 7/20/04 at 59; Jokiel WDT at 8; Exhibit 15 at 6).

17. In addition to the Plan of Emergency Measures, Pila'a 400 has prepared Conceptual Remediation Plans to implement remediation plans for the Pila'a Property to minimize erosion throughout the Property. Remediation Plan - Package 1 has been approved by the DLNR as well as other state and federal agencies and is expected to be implemented in the fall of 2004. Remediation Plans - Package 2

contains additional remediation work which has been approved by the DLNR and is presently under review with other state, county, and federal agencies. (Wallrabenstein WDT at 15, 22-23; Wallrabenstein Tr. 8/3/04 at 15:3-9; Exhibit D; Exhibit E; Exhibit F).

18. The Conceptual Remediation Plans, as detailed in construction plans Package 1 and 2, ensure that the entire Pila'a Property is stable and no further runoff into Pila'a Bay will occur. A portion of these plans directly relate to the impact area defined by the DLNR as Area "A". Remediation that relates to the DLNR's Area "A" include, 1) the trail in Gulch 2 will be removed and the stream relocated to its former location and configuration; 2) extensive landscaping in Gulch 2; 3) stabilization, filling and restoration of the shoreline cut; 4) re-vegetation of the shoreline; and 5) removal of the rock berm in Gulch 2 once the stream and landscaping are in place. (Wallrabenstein WDT at 17- 20; Exhibit D; Exhibit E; Exhibit F).

19. The estimated construction costs for completion of Package 1 and 2 is in the range of three to five million dollars. (Wallrabenstein WDT at 23; Wallrabenstein Tr. 8/3/04 at 109:8-21).

20. On September 2, 2003, the BLNR ordered as follows:  
The landowner (James Pflueger) violated the provisions of Chapter 183C, Hawaii Revised Statutes, and Chapter 13-5, Hawaii Administrative Rules (HAR), by failing to obtain the appropriate approvals for road construction, grading, filling, and storm drain construction in four (4) instances within the conservation district and is fined a penalty of \$8,000;

The landowner (James Pflueger) shall be assessed \$38,500 for administrative costs associated with the subject violations to be paid within sixty (60) days of the BLNR's action;

Mr. Pflueger shall implement a remediation plan for the Conservation District land areas, subject to detailed plan review by the DLNR as each project element is implemented. (The landowner) shall provide the DLNR with engineering progress reports after the first, second, and third year of the Board's decision on this matter to ensure that the remediation work is being implemented and is effective. The DLNR may require modifications to the remediation work if it determines that the measures are not timely or effective;

That in the event of failure of the landowner (James Pflueger) to comply with any conditions, he shall be fined an additional \$2000 per day until the order is complied with; and

That in the event of failure of the landowner (James Pflueger) to comply with any order herein, the matter shall be turned over to the Attorney General for disposition, including all administrative costs. and ordered a fine of \$8,000.00, administrative costs of \$38,500.00, and a land remediation plan. (Exhibit SS).

21. Pila'a 400 complied with condition no. 1 of the September 2, 2003 DLNR Order requiring payment of an \$8,000.00 penalty. (Lemmo Tr. 7/23/04 at 98:6; Exhibit SS).



22. Pila'a 400 complied with condition no. 2 of the September 2, 2003 DLNR Order requiring payment of \$38,500.00 for administrative costs. (Lemmo Tr. 7/23/04 at 98:7; Exhibit SS).

23. Pila'a 400 is in the process of complying with condition no. 3 of the September 2, 2003 DLNR Order requiring implementation of a remediation plan for the Conservation District land areas. (Lemmo Tr. 7/23/04 at 98:7-8, 99:16-22; Exhibit SS).

24. Condition no. 4 of the September 2, 2003 DLNR Order has not been triggered since Pila'a 400 is presently in compliance with all conditions of the Order. (Lemmo Tr. 7/23/04 at 98:19-24; Exhibit SS).

25. Condition no. 5 of the September 2, 2003 DLNR Order has not been triggered since Pila'a 400 is presently in compliance with all conditions of the Order. (Lemmo Tr. 7/23/04 at 99:25-100:6; Exhibit SS).

26. In 2002 and thereafter Pila'a 400 implemented remedial measures on the Property to prevent further erosion. Such measures were required by the DLNR, the County of Kauai, the state Department of Health, and the federal Environmental Protection Agency. There is no evidence of additional mud or sediment entering the conservation district from the Property after 2002.

C. *IMPACT ON THE CONSERVATION DISTRICT*

1. Dr. Jokiel first visited Pila'a in June 2002. (WDT of Jokiel, page 2).
2. At that time, he (Dr. Jokiel) conducted a preliminary evaluation of Pila'a reef to evaluate the general condition of the reef and to determine if further survey work should be undertaken. (WDT of Jokiel, page 2).
3. The mudflows entered the bay to the east (right) of the channel as generally depicted on DLNR Exhibit 1, page 53. As mentioned above, the general flow of water over that part of the reef is to the west to and then out through the channel. Accordingly, areas west of the channel and upstream (to the east) of the mudflow "were in relatively good condition. (WDT of Jokiel, pages 4-5). (The Hearing Officer determined that Dr. Jokiel's statement on page 5 equating "upstream" with "west" is a typographical error.)
4. Conditions in the areas "downstream" of the mudflows were clearly degraded. (WDT of Jokiel, pages 4-5). This mud was continually re-mobilized by wave action to create chronic turbid conditions. Corals in the shallow water were bleached, which is an indication of stress due to high sediment loading. (Exhibit 1, page 14).
5. Dr. Jokiel observed large coral heads, all of which appeared to be dead or dying and becoming overgrown by algae. He also observed a lack of new coral colonies or small coral, lack of encrusting corals, substrate covered with algae and fine terrigenous sediment, and the presence of anoxic (oxygen poor) carbonate sediments.

All of these indicators are evidence of a degraded reef system. (WDT of Jokiel, page 6).

6. Highly elevated sediment levels persisted in the impact area for at least a year. (Exhibit K, page 38c). These elevated sediment levels ranged from 5 to 30 times the unimpacted background level. (Testimony of DeCarlo, transcript (7/29/04) pages 112-113).

7. Video evidence accurately depicts the Pila'a area and shows continuing sediment in the beach, in the water, and on the reef as of November 2001 (Exhibit 12), June 2002 (Exhibit 12 and Exhibit 21), and July 2004. (Exhibit 39).

8. At the site visit, the Hearing Officer observed a layer of mud on the beach directly under the overlaying white sand. This mud immediately re-suspended and colored the water red when hit by waves. (See also testimony of Richmond, transcript (7/26/04), pages 62-63; Exhibit 39). The Hearing Officer observed anoxic conditions and sediment on the reef. (Testimony of Richmond, transcript (8/6/04), page 213; Exhibit 39).

9. The extended period of high turbidity reduced light penetration through the water and inhibited photosynthesis of corals and algae. Reef corals contain symbiotic algae and depend on sunlight for their nutrition. Continual turbidity creates stressful conditions for the corals. (Exhibit 11).

10. Dr. Jokiel concluded that additional study of the area was warranted. Accordingly, DLNR decided to conduct a more detailed assessment of

damages to the marine environment in order to gain a more comprehensive understanding of the extent of damages. (Exhibit 1, page 16).

11. DLNR retained a scientific team of technical experts to study the coastal area at Pila'a. The team included scientists from the University of Hawaii, Hawaii Institute for Marine Biology and the Hawaii Coral Reef Assessment and Monitoring Program (CRAMP) (Dr. Paul Jokiel), the University of Hawaii, Department of Geology and Geophysics, within the School of Ocean and Earth Science and Technology (Dr. Charles Fletcher), the University of Hawaii, Botany Program (Ryan Okano), and officials of the Department of Land and Natural Resources, Division of Aquatic Resources (Dave Gulko and Dr. William Walsh). (Exhibit 1, page 16).

12. On August 5, 2002, approximately eight (8) months after the November 26, 2001, mudflow, the scientific team arrived at Pila'a to conduct an assessment. The objectives of the project were to: (1) better understand the cause and source of the mud flow, (2) objectively assess the overall impact of the event(s) on the shoreline and marine environment, (3) consider long term remedial measures/marine monitoring, and (4) consider and weigh potential penalties to be imposed on the responsible party due to the event. (Exhibit 1, page 16).

13. The work conducted by the scientific team consisted generally of: (1) detailed coral reef assessment at Pila'a Reef, (2) sedimentological survey of the reef and beaches of Pila'a, (3) algal survey of Pila'a marine area, (4) fish survey of Pila'a waters, (5) intertidal study, (6) study of the deep channel and outside reef at Pila'a, (7) meteorological and hydrological assessment within the study area; and (8) review of

existing literature cases involving coral reef valuation and damage assessments.

(Exhibit 1, pages 16-17).

14. There are no quantitative data as to the condition of the Pila'a reef before the November 26, 2001, mudflow. (Testimony of DeCarlo, transcript (7/29/04), page 2) The team's surveys and studies utilized a reference or control area to compare with the impacted area. The area selected as the reference area by the DLNR team of technical experts is the portion of Pila'a Bay lying to the west of the deep channel. (WDT of Jokiel, pages 4-5; Exhibit 2, page 47).

15. No reference area is or could be exactly the same as the impact area before the November 26, 2001, mudflow. The reference area selected by the DLNR team was appropriate. The reasons include but are not limited to the following: the reference area is the closest available site to the impact area; the sites have a similar but separate current circulation system; the sites had the same environmental conditions; the extension of Pila'a Stream into the ocean bisects the reef flat so that the mudflows were largely confined to the impact site; the areas were similar in terms of bottom contours, depth, distance from shore, and orientation. (WDT of Jokiel, page 4-5; WDT of Walsh, pages 1-2).

16. Dr. Jokiel conducted a quantitative survey of the impact area and a control area. (Exhibit 2, pages 31-39).

17. Dr. Jokiel's comparative study is a reliable estimate of the percentage of live coral destroyed by the November 26, 2001, mudflow and subsequent sedimentation events. (Exhibit 2, pages 31-39).

18. The percentage of live coral coverage in the impact area decreased from approximately 14% to approximately 3% as a result of the November 26, 2001, mudflow and subsequent sedimentation events. (Exhibit 2, page 34).

19. At his transect A, located directly offshore of the culvert, terrigenous material was measured by Dr. Carlo at 50%-60% in September 2002, falling to 19% in December 2002, and then reaching a low of less than 3% in April 2004. At transect B, located in front of Nicholas Marvin's house, terrigenous material was measured at 30% in September 2002, 30 % in December 2002, and falling to a low of less than 3% in April 2004. At transect C, located in front of Richard Marvin's house, terrigenous material was measured at approximately 3% in September 2002, 30 % in December 2002, and falling to less than 3% in April 2004. (WDT of DeCarlo, pages 18-20; Exhibit M at 6-7; Exhibit KKK).

20. By April 2004, the highest sample of terrigenous material was 2.5%, an amount of terrigenous material in the reef environment that is considered normal. Dr. Jokiel concurs that as much as 7% terrigenous material in the reef environment is considered normal. (WDT of DeCarlo, pages 20-21; Exhibit M at 7; Exhibit KKK; Exhibit 2 at 55-56).

21. Based on the analysis of sediment samples selected at four transects at Pila'a between July 2002 and April 2004, the dynamic and active nature of the environment at Pila'a has resulted in the removal of a majority of the terrigenous material from the reef that entered the ocean in November 2001. (Exhibit M at 6, 15-16; Exhibit LLL).

22. While there are lay witness observations of the coral cover at Pila'a Bay prior to 2001, there is no known scientific survey of the Pila'a area prior to 2001. Consequently, there is no scientific method to determine the exact amount of coral cover at the Primary Impact Area A prior to the rainstorm of November 2001. (Dollar WDT at 11; Exhibit 2 at 62).

23. The DLNR seeks damages for the impact area identified as Primary Impact Area A only and not for Impact Area B. (Lemmo Tr. 7/23/04 at 167:18-23; Exhibit 1 at pages 51-55).

24. Primary Impact Area A was derived by Sam Lemmo and included a generalized area around the 10 transects used by Dr. Paul Jokiel. The determination of Primary Impact Area A was not based on exact science nor was it scientifically done. (Lemmo Tr. 7/23/04 at 157:15-158:6; 161:5-8; Exhibit 1 at 53).

25. Sediment studies conducted by Dr. DeCarlo show that terrigenous sediment ran into the ocean approximately 150 feet offshore or one third of the distance across the reef flat. Primary Impact Area A extends twice as far as observable concentrations of terrigenous material. (DeCarlo Tr. 7/29/04 at 33:9-16, 36:2-5).

26. The proposed Primary Impact Area A includes an area double the area of Dr. Jokiel's transects. Dr. Jokiel's study of selected transect sites in the impact area obtained data on an area much smaller than the DLNR Impact Area A. (Jokiel Tr. 8/6/04 at 34:21-35:5, 36:15-37:2, 37:8-15, 38:23-39:8, testimony of Lemmo, transcript (7/23/04 ), page 160:13-24).

27. A reasonable approximation of the size of the Primary Impact Area A is 26,750 square meters rather than the 53,000 square meters proposed by the DLNR. (Exhibit 1, pages 53-54).

28. Applying Dr. Jokiel's estimate of decrease in live coral coverage to the Primary Impact Area A indicates that approximately 2,943 square meters of live coral was destroyed by the November 26, 2001, mudflow and subsequent sedimentation events.

29. There were secondary impacts at Pila'a Bay of the November 26, 2001 mudflow and subsequent sedimentation events. (WDT of Jokiel, pages 6-7).

30. Other impacts of the November 26, 2001, mudflow and subsequent sedimentation events include high rates of stress on surviving corals, the hard substrate is covered with mats of algae and terrigenous sediment rather than the pink crustose algae that would be expected; terrigenous mud has mixed with carbonate sands on the beach, intertidal area, and subtidal area; abnormally high organic levels and anoxic conditions; sedimentation of holes and crevices that are important to diversity of marine life. (WDT of Jokiel, pages 6-7; Exhibit 2, page 4).

31. Dr. DeCarlo dug trenches on the beach above locations at transects A, B, and C. Samples were collected and subjected to 1) chemical analysis and 2) grain size analysis. (DeCarlo Tr. 7/29/04 at 43:8-16).

32. Based on the samples taken in November 2003 and April 2004, Dr. DeCarlo observed a steady improvement in beach conditions owing to a progressive



washout of terrigenous material. (DeCarlo Tr. 7/29/04 at 45:9-12). However, the terrigenous material still exists on the beach. (See V, Section C, paragraph 8).

33. Trenching on the beach at the culvert location shows that the mud layer at this location thinned substantially from 1-1 ½ inches in November 2003 to ½ inch in April 2004. The amount of mud within the remaining layer also experienced a three fold decrease in the fine material of silt and clay. (DeCarlo Tr. 7/29/04 at 60:19-23, 61:2-20).

34. The entire beach at Pila'a was not subjected to direct mud impact and any mud layer has restricted distribution corresponding to the input from the mud fingers. (DeCarlo Tr. 7/29/04 at 63:14-19, 66:15-19).

35. While some terrigenous material remains in some restricted beach areas, winter surf will continue to have a natural cleansing of the beach by re-suspending terrigenous sediment on the beach where the current will transport the sediment laterally to the channel and then out into the ocean. (DeCarlo Tr. 7/29/04 at 149:24-25, 150:11-151:4).

36. From the time of the November 2001 mudflow to the summer of 2004, Dr. DeCarlo has observed a ten fold decrease in the abundance of terrigenous material within impacted areas on Pila'a Beach. (DeCarlo Tr. 7/29/04 at 65:15-25).

37. Numerous lay witnesses familiar with the Pila'a Bay area both before and after the mudslide of November 26, 2001 testified that the condition of the beach was mostly recovered. (Tokioa Tr. 7/28/04 at 205:10-13; Iida Tr. 7/28/094 at 249:24-250:7, 267:1-7; Iida WDT at 4; Rosa WDT at 6).

38. Similarly, lay witnesses familiar with the Pila'a Bay area both before and after the mudslide testified that the condition of the reef has also recovered significantly. (Tokioka Tr. 7/28/04 at 192:11-18, 203:7-204:9; Nakazawa Tr. 7/28/04 at 217:15-23, 223:5-15; Siliado Tr. 7/28/04 at 295:21-296:18; Siliado WDT at 3; Iida WDT at 4; Nakazawa WDT at 2; Tokioka WDT at 5; Okita WDT at 5).

39. The concentration of mud in and on the beach, on the reef, and suspended in the water has decreased from the time of the DLNR's June 2002 visit to the present. ( DeCarlo report, Exhibit M, page 6.) Massive soil stabilization conducted in 2001-2002 and extremely heavy surf during the winters of 2002-2003 and 2003-2004 flushed much of the accumulated sediment from the impacted are of the Pila'a reef into the deep channel and out to sea. (WDT of Jokiel, pages 8 and 9; Exhibit 15 at 6).

40. The negative impacts of the November 26, 2001, mudflow have not yet been completely reversed. There is no conclusive evidence of when, if ever, the area will return to its pre mudflow conditions.

#### *D. Damages*

1. There is no definitive method of attaching a dollar value to the Pila'a beach, bay, and reef. There is no market in which such properties are traded; therefore the traditional market value method of appraisal by comparison to recent sales of similar property cannot be employed. (Testimony of Richmond, transcript (7/26/04), pages 19-20).

2. The issue of valuing natural resources in general and reefs in particular is so important (for a variety of reasons and in many different contexts), and

there is a large and growing source of literature and some case law on the subject.  
(testimony of Richmond, transcript (7/26/04), pages 20-23).

3. Coral reefs have a number of elements of value, including use value, option value, commodity value, existence value, bequest value, and cultural values, including value to indigenous people. (Exhibit U, page 158; testimony of Dixon, transcript (8/13/04), pages 141-142).

4. "Use value" includes direct uses values and indirect use values. Direct use values are those economic values associated with direct interaction with the coral reef. These can be either "consumptive" uses or "non consumptive" uses. Consumptive uses involve extracting something from the reef. Such uses include coral mining, shell collection, and fishing. Non consumptive uses do not remove anything from the reef and include scuba diving, snorkeling, viewing the reef from a glass bottom boat or submarine, and sailing or kayaking over the reef. (Exhibit T, page 2; testimony of Dixon, transcript (8/13/04), pages 144-150).

5. Indirect use values include those uses or benefits from the reef that produce a benefit somewhere else. These values include shoreline protection, value of any fishery that is partly dependent on the reef for part of its life cycle even if caught elsewhere, and ecosystem value – that is the role of the reef in the larger coastal ecosystem. (Exhibit T, page 2-3; testimony of Dixon, transcript (8/13/04), pages 144-150).

6. "Non-use" values are benefits that people receive even if they do not involve any direct or indirect use of the reef. Non-use values include option value

(the value that someone places on maintaining the resource in case they want to use it in the future), bequest value (the value one places on the reef so that it will be there for generations), and existence value (the value one places on a healthy reef just to know that it exists now). (Exhibit T, page 3; testimony of Dixon, transcript (8/13/04), pages 144-150).

7. Indirect and non-use values are related to human use or knowledge. However, based upon the provision of the Hawaii State Constitution, reefs and natural resources, including Pila'a beach, bay and reef, have value beyond that which can be measured by human use and price alone. (Dixon transcript 8/13/04, p. 141-142).

8. Simply waiting for the coral to grow back or the beach to recover naturally is an inadequate remedy for the damages sustained at Pila'a Bay to State of Hawaii conservation lands.

9. Another commonly accepted method of valuing (or “monetizing”) damage to coral reefs is based on the value of “restoring the reef to its original state” plus compensation for interim losses. (Herman Cesar et al, Exhibit W, page xv) (“Unless the restoration costs are exorbitant, damage claims based on the sum of restoration costs and compensation of interim losses are both economically justified and fair.”) (WDT of Richmond, page 4).

10. Exhibit W, written by Herman Cesar et al., states that restoration costs can range from \$550 to over \$10,000 per square meter of coral destroyed.

11. Cleaning the beach and reef of sedimentation would cost from \$3.1 million to \$4.7 million. Cleaning the beach alone is estimated to cost \$390,000 to clean 5,000 cubic yards of sand, and \$2,300,000 to 3,900,000 to clean 30,000-50,000 cubic yards of sand. While it would be inappropriate to clean the reef in this case due to the potential to cause additional damage to the reef, it is nevertheless useful in indicating the amount of damages to State land, including submerged lands. (Jokiel Tr. 7/20/04 at 155:18-21; Exhibit 1, page 50).

12. The State of Florida passed a statute reasonably valuing reefs at \$1000 per square meter. (Exhibit 1, page 51).

13. Using the range of reef restoration costs in Cesar, and 26,750 square meters as the area of the impacted area, and the Jokiel estimate of decrease in live coral coverage, the low end of cost to clean the beach of \$390,000, and adding the intrinsic value of Pila'a Bay and its value as a protected natural resource under the State Constitution and chapter 183C, HRS, and compensation for interim losses, the state land (including submerged land) has been damaged by the November 26, 2001 mudflow and subsequent sedimentation events in the amount of \$ 3,333,000 (Three million three hundred thirty-three thousand dollars). (Exhibit 1, page 55).

14. Long term monitoring of the reef community at Pila'a will be required. (Exhibit 1, page 50). The cost of monitoring the reef at Pila'a is approximately \$63,000 per year. Although the Hearing Officer recommended that monitoring occur for 5 years, taking into consideration that the amount of time for Pila'a beach, bay and reef to fully recover is unknown, and taking into consideration that

some reef damage (although not the reef damage at issue in this case) occurred in the 1990's, the BLNR concludes that monitoring should occur for 10 years.

15. As the owner of the Property when the mud was deposited onto the conservation land and submerged lands, Pila'a 400 is responsible for these damages to state lands and the costs of monitoring.

16. The damages and the necessity of monitoring resulted from Pila'a 400's violation of chapter 183C, HRS, and rules adopted in accordance with chapter 183C.

17. DLNR has met its burden of proving by a preponderance of the evidence violation by Pila'a 400 and damages as stated above.

18. Any finding of fact that is or should be a conclusion of law is to be taken as such notwithstanding its denomination as a finding of fact.

## VI. CONCLUSIONS OF LAW

### A. JURISDICTION AND PARTIES

1. The BLNR has jurisdiction over this enforcement action pursuant to HRS chapter 183C.

2. Pila'a 400 properly requested a contested case pursuant to HAR § 13-1-29.

3. The BLNR has jurisdiction to assess damages to the State land, including submerged land, caused by the unpermitted deposit of mud from the property onto State land, including submerged land, together with administrative costs of the contested case hearing.

4. DLNR and Pila‘a 400 are proper parties in this contested case hearing pursuant to HAR § 13-1-31.

5. The BLNR and its chairperson properly designated Michael W. Gibson to preside over the contested case hearing pursuant to HAR § 13-1-31.

**B. CONSTITUTIONAL AND STATUTORY PROVISIONS AND ADMINISTRATIVE RULES**

1. The BLNR and DLNR manage the Conservation District consistent with Article XI, Section 1 of the Hawai‘i Constitution and HRS chapter 183C. Article XI, Section 1 provides:

*For the benefit of present and future generations, the State and its political subdivisions shall conserve and protect Hawaii's natural beauty and all natural resources, including land, water, air, minerals and energy sources, and shall promote the development and utilization of these resources in a manner consistent with their conservation and in furtherance of the self-sufficiency of the State.*

All public natural resources are held in trust by the State for the benefit of the people.

2. HRS § 183C-1 (Cum. Supp. 2003) makes the following statement of public policy:

*The legislature finds that lands within the state land use conservation district contain important natural resources essential to the preservation of the State's fragile natural ecosystems and the sustainability of the State's water supply. It is therefore, the intent of the legislature to conserve, protect, and preserve the important natural resources of the State through appropriate management and use to promote their long-term sustainability and the public health, safety and welfare.*

3. HRS § 183C-2 (Cum. Supp. 2003) defines “land use” to mean

- (1) The placement or erection of any solid material on land;
- (2) The grading, removing, harvesting, dredging, mining, or extraction of any material or natural resource on land;
- (3) The subdivision of land; or
- (4) The construction, reconstruction, demolition, or alteration of any structure, building, or facility on land.

It is not limited to grading or dredging.

4. HRS § 183C-3 (Cum. Supp. 2003) provides:

The board and department shall:

\* \* \*

- (7) Establish and enforce land use regulations on the use of conservation lands including the collection of fines for violations of land use and terms and conditions of permits issued by the department.

5. HRS § 183C-6 (Cum. Supp. 2003) provides that the Department

“shall regulate land use in the conservation district by the issuance of permits.”

6. HRS § 183C-7(b) (Cum. Supp. 2003) provides:

*Any person violating this chapter or any rule adopted in accordance with this chapter shall be fined not more than \$2,000 per violation in addition to administrative costs and costs associated with land or habitat restoration, or both, if required, and damages to state land. After written or verbal notification from the department, willful violation of this section may incur an additional fine of up to \$2,000 per day per violation for each day in which the violation persists.*



The underlined language was added to the section by Act 16, 2003 Hawai'i Session Laws 25. However, this language clarified rather than amended the pre-existing law and the amendatory language is applicable to this matter. State v. Brantley, 99 Hawai'i 463, 56 P.3d 1252 (2002); Tam v. Kaiser-Permanente, 94 Hawai'i 481, 17 P.3d 217 (2001); Macabio v. TIG Insurance Co., 87 Hawai'i 307, 955 P.2d 100 (1998) The legislative history of Act 16, which amended HRS § 183C-7 in 2003, indicates the amendment was merely a clarification and not a substantive amendment. The BLNR intends to assess damages to state land, and not land or habitat restoration costs.

7. HAR § 13-5-6(a) provides:

*Any person, firm, government agency, or corporation violating any of the provisions of this chapter or permits issued pursuant thereto shall be punished as provided in chapter 183C, HRS.*

8. HAR § 13-5-10(c) provides: "Land uses permitted in a subzone shall be restricted to those uses provided for in this chapter."

9. HAR § 13-5-30(b) provides that "Unless otherwise provided in this chapter, land uses shall not be undertaken in the conservation district."

### C. DISCUSSION AND CONCLUSIONS

1. Pila'a 400 had fair and sufficient notice of the violation complained of. (See Exhibit SS.)
2. The violation was placement of any solid material on land in the form of dumping or allowing to be put on conservation land (including submerged land) of a large unknown amount of dirt and sediment. The "illegal activity" that was conducted on conservation land (including submerged land) was dumping or allowing to be dumped a large unknown quantity of dirt and mud without a permit as required by HAR §§ 13-5-24 and 13-5-30(b).
3. As the owner of the Property on November 26, 2001, thereafter, Pila'a 400 was responsible to assure that there was no unpermitted dumping onto conservation land, including submerged lands. As the owner of the Property on November 26, 2001, and thereafter, Pila'a 400 was responsible to the State for the condition of the Property and for the consequences of any illegal activity on the Property by its predecessors that resulted in damage to State land (including submerged land) after it acquired the Property. As between Pila'a 400 and its predecessors, liability is a matter of agreement between them.
4. Pila'a 400 acknowledges that sediment went from its Property onto State conservation lands, including submerged lands.
5. Dumping soil onto conservation land falls within the definition of "land use" in HRS §183C-2.

6. The illegal, unpermitted, and improper grading, filling, excavation, and construction on the Property by Pila'a 400, its predecessors, managers or agents, caused a large unknown quantity of mud to flow onto, across, and into Pila'a beach, bay, and reef, on November 26, 2001, and thereafter, causing damage to State land and resources (including submerged land).

7. Pila'a beach, bay, and reef is state owned land (including submerged and tidal land) in the conservation district, limited or resource subzone.

8. The November 26, 2001, mudflow and subsequent sedimentation events constitute placement of solid material on land and the grading of land and are a regulated land use within the meaning of HRS § 183C-2 (Cum. Supp. 2003).

9. Pila'a 400 did not have a DLNR or BLNR permit authorizing any land use in the conservation district.

10. The November 26, 2001, mudflow and subsequent sedimentation events constitute violation by Pila'a 400 of HRS chapter 183C and violation of rules adopted in accordance with chapter 183C.

11. By reason of the violation, Pila'a 400 is liable for administrative costs and damages to state land, including submerged land. HRS § 183C-7(b).

12. The value of Pila'a beach, bay, and reef includes use value, option value, commodity value, existence value, bequest value, cultural values, including value to indigenous people, and intrinsic value. Economic and use (market)

values alone cannot and do not capture the full value of Pila‘a. Economic valuation alone understates the true social loss from natural resource damage. The intrinsic value of Pila‘a is recognized by the Hawai‘i constitution and state laws, including section 183C-1, HRS. The BLNR holds Pila‘a and all state property in trust for the people of Hawai‘i and for future generations.

13. Given the elements of value discussed above and in consideration of all the facts and evidence, including but not limited to the range of values stated in scholarly papers for reefs, the probable costs of restoration of Pila‘a bay and reef and beach, the value of the coral destroyed, and the intrinsic value of Pila‘a Bay and reef, and the costs of monitoring for 10 years beginning in 2005, the BLNR rejects the Hearing Officer's recommendation of damages. Under the circumstances of this case, the Hearing Officer's recommendation as to the amount of damages is too lenient to reflect the BLNR's duty to protect this valuable natural resource under constitutional and statutory law. Therefore, the BLNR concludes that monitoring as described in Exhibit 2 should be done for a period of 10 years beginning in 2005 and that the State land (including submerged lands) was damaged in the sum of \$3,333,000 (Three Million Three Hundred Thirty-three Thousand Dollars).

14. Pila‘a 400 is obligated to pay the total damages of \$ 3,963,000.

15. DLNR has met its burden of proving by a preponderance of the evidence violation by Pila‘a 400 and damages as stated above.

16. DLNR is entitled to administrative costs in the amount of \$69,996.93, for the contested case hearing, which amount does not include costs already paid by the Pflueger parties.

17. BLNR rejects the Hearing Officer's recommendation that the damages be held in trust and be used to offset costs of improvements to the Property. If Pila'a 400 or its predecessors or agents had obtained the required permits, it is very likely that it would have been required as a condition of those permits to implement the same or similar activities on land to protect Pila'a beach, bay and reef, at the same or similar costs to those it has incurred. Allowing an offset would not compensate for the damages caused to Pila'a beach, bay and reef. In addition, section 171-19(a), HRS, requires moneys collectible under chapter 183C to be deposited into the special land and development fund. The damages to state land and the administrative costs are collectible by the DLNR pursuant to HRS § 183C-7, and shall be deposited into the special land and development fund, pursuant to HRS § 171-19(a).

18. Any of the proposed findings of fact or conclusions of law submitted by any of the parties and the Hearing Officer not already ruled on by the BLNR by adoption, or rejected by clearly contrary findings of fact herein, are hereby denied and rejected. Any conclusion of law that is or should be a finding of fact is to be taken as such notwithstanding its denomination as a conclusion of law.

## VII. DECISION AND ORDER

IT IS HEREBY determined that State land, including submerged lands, at Pila'a beach, bay and reef, has been damaged in the amount of \$3,963,000, and IT IS HEREBY ORDERED that Pila'a 400, LLC, is responsible for said damages and should pay said damages, together with

administrative costs in the amount of \$69,996.93. Payment should be made to the State of Hawaii special land and development fund.

The foregoing Findings of Fact, Conclusions of Law and Decision and Order may be signed in counterparts.

DATED: Honolulu, Hawai'i; June 24, 2005.

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PETER T. Young  
Chairperson

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TIMOTHY E. JOHNS, Member

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TED K. YAMAMURA, Member

---

TOBY MARTYN, Member

---

RON AGOR, Member

---

GERALD DEMELLO, Member

---

KATHRYN WHANG INOUE, Member

BOARD OF LAND AND NATURAL RESOURCES

STATE OF HAWAI'I

In The Matter of a Contested Case Regarding ) DLNR File No. HA-04-02  
an Enforcement Action Involving the Alleged )  
Damages to State land(s) and Natural ) CERTIFICATE OF SERVICE  
Resources due to Excessive Sedimentation at )  
Pila'a, District of Hanalei, Island of Kaua'i )  
)  
)  
)  
\_\_\_\_\_)

CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing document was duly served on this date on the following parties by United States mail, postage prepaid:

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Attorneys for Pila'a 400, LLC, Pflueger  
Properties, and James Pflueger

DATED: Honolulu, Hawai'i; June \_\_\_\_\_, 2005.

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DAWN T. HEGGER